

A.F.H.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re application of:
Brian Birrenkott et al.

Application No.: 10/712,970

Filed: November 13, 2003

For: SPRAYING DEVICE WITH
INTERCHANGEABLE
CARTRIDGE

Examiner: Kim, Christopher S.

Art Unit: 3752

Confirmation No.: 9431

) Attorney Docket No. 906346039245

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) *Eric G. Bowery*

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APPELLANT'S APPEAL BRIEF (37 C.F.R. §41.37)

A Notice of Appeal relating to this appeal was filed on June 3, 2005. Accompanying this Brief is the fee set forth in 37 C.F.R. §41.20(b)(2).

I. REAL PARTY IN INTEREST

The real party in interest is OMS Investments, Inc., a Delaware corporation, having a place of business at 10250 Constellation Blvd., Suite 2800, Los Angeles, CA 90067-6228.

II. RELATED APPEALS AND INTERFERENCES

Appellant is unaware of any other prior or pending appeal, interference or judicial proceeding which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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III. STATUS OF CLAIMS

- A. Claim 7 is cancelled.
- B. No claims are allowed.
- C. Claims 1-6 and 8-33 are rejected.
- D. Claims 1-6 and 8-33 are being appealed.

IV STATUS OF AMENDMENTS

An amendment after final was filed on April 1, 2005, to change the dependency of claim 13. The Examiner, in an office action mailed April 13, 2005, stated that this "proposed amendment will be entered upon filing of an appeal brief."

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1. A spraying device (10, 12; page 5, line 3; FIGS. 1-5) comprising:

a cartridge (12) containing a first liquid (36), the cartridge being removably connected to a sprayer body (10), the cartridge (12) being oriented such that gravity exerts a downward force on the first liquid (page 5, lines 3-7 and 27-29; FIGS. 3 and 4);

the sprayer body (10) comprising:

a conduit (17) for receiving a second liquid (37; page 5, lines 5-7 and 12-15; FIGS. 3 and 4);

a movable valve structure (20) having first and second liquid passageways, the first passageway communicating with the first liquid (36) from the cartridge (12) and the second passageway communicating with the second liquid (37) flowing from the conduit (17; page 5, lines 5-7, 17, 18 and 22-25, page 5, line 29-page 6, line 2; FIGS. 3 and 4);

a manual actuator (22) positioned in operative relationship with the movable valve structure (20) enabling movement of the valve structure between at least three discrete positions (page 5, lines 20-21) including:

a) a first position enabling the second liquid to flow through the valve structure to create a reduced pressure in the valve structure which draws the first liquid out of the cartridge and into the valve structure whereby the first and the second liquids mix to form an outlet stream which flows through the valve structure (page 5, lines 22-25, page 5, line 29-page 6, line 3, page 6, lines 6-7; FIG. 3);

b) a second position enabling the second liquid only to flow through the valve structure and blocking the flow of the first liquid through the valve structure (page 6, lines 7-8; FIG. 4), and

c) a third position blocking the first and the second liquids from flowing through the valve structure (page 6, lines 6-9; FIG. 5); and

an orifice (42, 70) disposed in the spraying device for metering a predetermined amount of the first liquid from the cartridge into the valve structure when the valve structure (20) is in the first position to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream (page 5, line 29-page 6, line 3; FIG. 3; page 6, line 28-page 7, line 1; FIG. 9).

Claim 19. A spraying device (10, 12; page 5, line 3; FIGS. 1-5) comprising:

a sprayer body (10) coupled to a cartridge (12) containing a first liquid (36; page 5, lines 3-7' FIG. 3);

the sprayer body (10) comprising:

a conduit (17) for receiving a second liquid (37; page 5, lines 5-7 and 12-15; FIGS. 3 and 4);

a valve structure (20) coupled to the conduit (17), the valve structure (20) allowing passage of the second liquid (37) through the valve structure (20) to create a reduced pressure that draws the first liquid out of the cartridge (12) and into the valve structure (20)

without the need for a dip tube, the valve structure enabling the first and the second liquids to mix and form an outlet stream (page 5, lines 22-29; FIG. 3),

the valve structure (20) being movable between at least three positions including a first position for allowing the first and the second liquids to flow, a second position for allowing the second liquid to flow and for blocking the first liquid, and a third position for blocking flow of the first and the second liquids (page 5, lines 20-25, page 5, line 29-page 6, line 3, page 6, lines 6-9; FIGS. 3, 4 and 5); and

an orifice (42, 70) disposed in the spraying device for metering a predetermined amount of the first liquid (36) into the valve structure (20) to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream (page 5, line 29-page 6, line 3; FIG. 3; page 6, line 28-page 7, line 1; FIG. 9).

Claim 27. A spraying device (10, 12; page 5, line 3; FIGS. 1-5) comprising:

a sprayer body (10) for removable connection with a cartridge (12) containing a first liquid (36), the cartridge (12) being oriented such that gravity exerts a downward force on the first fluid (page 5, lines 3-7 and 27-29; FIGS. 3 and 4);

the sprayer body (10) comprising:

a conduit (17) for receiving a second liquid (37; page 5, lines 5-7 and 12-15; FIGS. 3 and 4);

a rotatable valve structure (20) coupled to an actuator (22) and the conduit (17; page 5, lines 17, 18, 20 and 21; FIG. 3),

the rotatable valve structure (20) allowing the second liquid (37) to flow through the valve structure (20) to create a low pressure that draws the first liquid (36) out of the cartridge (12) and into the valve structure (20) without the need for a dip tube, the rotatable valve

structure (20) enabling the first and the second liquids to mix and form an outlet stream (page 5, line 22-page 6, line 2; FIG. 3),

the actuator (22) and the rotatable valve structure (20) being movable between at least two positions including a first position for allowing the first and the second liquids to flow and a second position for allowing the second liquid to flow and for blocking the first liquid from flowing (page 5, lines 20-25, page 5, line 29-page 6, line 3, page 6, lines 6-8; FIGS. 3 and 4); and

an orifice (42, 70) disposed in the spraying device for metering a predetermined amount of the first liquid (36) into the valve structure (20) to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream (page 5, line 29-page 6, line 3; FIG. 3; page 6, line 28-page 7, line 1; FIG. 9).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-5, 8, 9, 11, 12, 14-17, 19-21, 23-25, 27-29 and 31-33 are rejected under 35 U.S.C. §102(b) as being anticipated by Norman, U.S. Patent 4,878,619.

B. Claims 10, 13, 18 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Norman, U.S. Patent 4,878,619.

C. Claims 6, 22 and 30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Norman, U.S. Patent 4,878,619 in view of Packard, U.S. Patent 2,991,939.

VII. ARGUMENT

A. Contentions Relative To The Rejection of Each Claim Listed Below Under 35 U.S.C. §102

1. Examiner's Statement of Rejection

Claims 1-5, 8, 9, 11, 12, 14-17, 19-21, 23-25, 27-29 and 31-33 are rejected under section 102(b) as being anticipated by Norman, U.S. Patent 4,878,619 ("Norman"), a copy of which is attached in section IX, Evidence Appendix. The examiner's entire statement of rejection consists of two lines reciting parts but is lacking an analysis. The examiner states that Norman "discloses a spraying device comprising a cartridge 10 and a sprayer body 12. The sprayer body 12 comprising: a conduit 80; a movable valve 82; a manual actuator 76; an orifice 28/34." See Final Office Action mailed March 2, 2005, page 2, paragraph 5.

2. Relevant Authority

Section 102 of Title 35 United States Code states in relevant part that "a person shall be entitled to a patent unless the invention was patented. . .in this. . .country. . .more than one year prior to the date of the application for patent in the United States."

The case law states that anticipation under section 102 requires that each and every element of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705, 708, 15 USPQ.2d 1655, 1657 (Fed. Cir. 1990). The Manual of Patent Examining Procedures (MPEP), section 2131 states: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," citing *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ.2d 1051, 1053 (Fed. Cir. 1987). Also: "The identical invention must be shown in as complete detail as is contained in the. . .claim," citing *Richardson v. Suzuki Motor Co., Ltd.*, 868 F.2d 1226, 1236, 9 USPQ.2d 1913, 1920 (Fed. Cir. 1989), cert. denied 493 U.S. 853 (1989).

The courts and MPEP also require that all words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); section 2143.03 MPEP.

3. Appellant's Contention - Norman Does Not Show The Identical Invention Nor Does Norman Disclose Each And Every Claimed Limitation

Norman, which was cited for the first time in the final office action, fails to disclose each and every limitation in the rejection claims and the invention in Norman is not identical to the invention in the subject application. The examiner simply lists Norman's parts but makes no attempt to draw a one to one identity with the limitations of the rejected claims.

Each claim and claim group is analyzed below pointing out the limitations not found in Norman.

Claims 1-5, 8, 9, 11, 12 and 14-17 Contentions

The only cited reference, Norman, discloses a fluid spray system having a replaceable cartridge. The system includes a spray gun 12, FIG. 1 and an attached plastic cartridge 10 containing a concentrated cleaner or disinfectant, the cartridge hanging downwardly beneath the spray gun. The gun is connected to a water supply which is operated by a trigger mechanism 76. During operation, the cleaner liquid in the cartridge is drawn upwardly through a pick-up tube 34 and a valve 82 by a Venturi effect.

In cleaning mode, the Norman valve 82 is in a position shown in FIG. 3A where a low pressure region is created by moving water through the valve to draw cleaner liquid upwardly out of the cartridge 10 through a metering/check valve 40 at the bottom end of the tube 34. The cleaner is mixed with the water in the valve 82 and dispensed to a nozzle conduit 94 and then discharged.

In rinse mode, the Norman valve 82 is rotated to a position shown in FIG. 3B. In this configuration the water flow does not create a low pressure region so no cleaner liquid is drawn up from the cartridge through the tube 34. Only water is discharged from the system.

It should be noted that the Norman valve 82 only moves between two positions, a cleaning mode position and a rinse mode position as a result of the presence of a detent plate 124 and detent posts 90 and 98. There is no teaching of a third position. The Norman system is "off" (no water and no cleaner liquid) when a second independent valve spaced from the valve 82, i.e., trigger mechanism 76, is released.

In independent claim 1 of the present application there are at least two limitations that are not disclosed by Norman.

First, claim 1 states that the "cartridge containing a first liquid. . . (is) oriented such that gravity exerts a downward force on the first liquid." The claimed cartridge 12 is oriented to enable gravity assisted flow of the first liquid from the cartridge which in combination with the low pressure created by the water flow at the Venturi location 18, FIG. 3 of the subject application facilitates flow of the first liquid out of the cartridge. The orientation of the cartridge eliminates the need for any internal tube such as the tube 34 disclosed in Norman.

Second, claim 1 includes the limitation that the "manual actuator (is positioned) in operative relationship with the movable valve structure enabling movement of the valve structure between at least three discrete positions." As explained in the specification, the manual actuator 22 moves the valve structure 20 between a first position which allows both water and the cartridge liquid to flow, a second position which allows only water to flow, and a third position in which no liquid flows. To the contrary, the Norman valve 82 moves only between two positions for controlling the cartridge liquid. A different valve, the trigger mechanism 76, turns

the water on and off. It is clear that the trigger mechanism 76 of Norman, which the examiner attempts to equate with the manual actuator claimed herein, is not an equivalent mechanism. The Norman trigger mechanism does not enable movement of the valve 82 between three discreet positions.

Claim 11 - Further Contention

Claim 11 is dependent upon claim 1 and therefore includes the same limitations mentioned above in relation to claim 1. In addition, claim 11 includes the limitation that the "cartridge is capable of being disconnected from the sprayer bottle to enable the first liquid to be dispensed from the cartridge by squeezing the cartridge in an inverted position." There is no teaching in Norman that the cartridge 10 is capable of being disconnected, inverted and by squeezing dispensing the liquid within the cartridge 10. A review of Norman, FIG. 1 shows that his cartridge is not capable of operating in such a manner for two reasons. First, external pressure exerted on the cartridge will cause the ball 44 to block the tube 34 so as to prevent any liquid from flowing through it. Furthermore, if the cartridge 10 is not completely full, inverting the cartridge will place the upstream end of the tube 34 out of the liquid and no liquid will flow. By ignoring appellant's limitation, the examiner fails to meet the requirement of considering all words in the claim.

Claim 12 - Further Contention

Claim 12 is dependent upon claim 1 and includes the same limitations mentioned with regard to claim 1. In addition, claim 12 includes the limitation that the "cartridge includes a check valve for keeping the cartridge sealed until the first liquid is drawn out of the cartridge." Norman does not disclose such a check valve. The Norman check valve 40 is not normally closed. The only time the Norman check valve closes is when the valve 82 is intentionally

positioned to create a high pressure in the tube 34. This causes the ball 44 to block the orifice

50. Again, the examiner ignores appellant's claim limitations.

Claim 16 - Further Contention

Claim 16 is dependent upon claim 1 and includes the same limitations mentioned above regarding claim 1. In addition, claim 16 states that the "cartridge includes a secondary threaded closure." Norman does not teach a secondary threaded closure. The examiner again ignores a claim limitation.

Claims 19-21 And 23-25 Contentions

Independent claim 19 contains at least two limitations which are not disclosed by Norman.

The first limitation states that the valve structure allows "passage of the second liquid through the valve structure to create a reduced pressure that draws the first liquid out of the cartridge and into the valve structure without the need for a dip tube." (Emphasis added.)

Norman teaches a system having a dip tube, the tube 34. The limitation concerning the absence of a dip tube is ignored by the examiner.

A second limitation in claim 19 relates to the valve structure which creates a reduced pressure, "the valve structure (allowing passage of the second liquid and receiving the first liquid is) movable between at least three positions including a first position for allowing the first and second liquids to flow, a second position for allowing the second liquid to flow and for blocking the first liquid, and a third position for blocking flow of the first and the second liquids." The examiner ignores this limitation. Norman discloses that the valve 82 moves only between two positions.

Claim 24 - Further Contention

Claim 24 is dependent upon claim 19 and therefore includes the same limitations mentioned above in regard to claim 19. In addition, claim 24 includes the limitation that the "cartridge is capable of being disconnected from the sprayer body to enable the first liquid to be dispensed from the cartridge by squeezing the cartridge in an inverted position." There is no teaching in Norman that the cartridge 10 is capable of being disconnected, inverted and (by squeezing) dispensing the liquid within the cartridge 10. A review of Norman FIG. 1 shows that his cartridge is not capable of operating in such a manner for two reasons. First, squeezing the Norman cartridge will cause the ball 44 to block the tube 34 preventing any liquid from being dispensed. Furthermore, if the Norman cartridge 10 is not completely full, inverting the cartridge positions the upstream end of the tube above the liquid and no liquid will flow. The examiner ignores the claim 24 limitation.

Claims 27-29 and 31-33 Contentions

Independent claim 27 includes the same two limitations mentioned earlier in regard to claims 1 and 19, namely, the orientation of the cartridge so that gravity exerts a downward force on the first fluid and the absence of a dip tube. The contentions made above that neither limitation is disclosed by Norman, are incorporated herein by reference.

Claim 31 - Further Contention

Claim 31 is dependent upon claim 27 and includes the same limitations mentioned above in regard to claim 27. In addition, claim 31 includes the same limitation set forth in claim 11. The contention made with regard to claim 11, that Norman does not disclose such limitation, is incorporated herein by reference.

Claim 33 - Further Contention

Claim 33, dependent upon claim 27, includes the same limitations as set forth in claim 27 and in addition, states that the "actuator and the rotatable valve structure are movable into at least a third position wherein the flow of the first and the second liquids are blocked." As noted above, the valve 82 of Norman which creates the low pressure to draw in the liquid out of the cartridge 10 does not move into a third position blocking the flow of the water and cartridge liquid. Norman teaches that the flow of water is blocked by the separate trigger mechanism 76 as noted above.

4. Conclusions

The examiner has not met his burden of stating and then analyzing each and every limitation of each rejected claim. The examiner has not shown that the Norman disclosure is of an invention identical to applicants' invention. Therefore, the rejections under section 102 do not meet regulatory and statutory requirements.

B. Contentions Relative to One Set of Rejections of Each Claim Listed Below Under 35 U.S.C. §103

1. Examiner's Statement of Rejection

Claims 10, 13, 18 and 26 are rejected under section 103 as being unpatentable over Norman (the same reference as cited in the section 102 rejection). As with the section 102 rejection, the section 103 rejection based on Norman was made for the first time in the final office action.

The examiner states as to dependent claim 10 that "Norman discloses the limitations of the claimed invention with the exception of the cartridge being made of flexible plastic. Official notice is given flexible plastic. It would have been obvious to a person having ordinary skill in

the art at the time of the invention to have made the cartridge of Norman from flexible plastic to prevent corrosion."

With regard to dependent claim 13, the examiner states that "Norman discloses the limitations of the claimed invention with the exception of the check valve having a duckbill portion and an umbrella portion. Official notice is given a check valve having a duckbill portion and an umbrella portion. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have replaced the check valve of Norman with a check valve having a duckbill and an umbrella to provide an integral/one-piece check valve."

With regard to dependent claims 18 and 26, the Examiner states that "Norman discloses the limitations of the claimed invention with the exception of the anti-siphon unit. The specification, on page 5, paragraph 26, provides that the anti-siphon units are well known. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided an anti-siphon unit to the device of Norman to prevent back flow." See Final Office Action mailed March 2, 2005, pages 3 and 4, paragraph 7.

2. Relevant Authority

Section 103 of Title 35 U.S.C. recites in relevant part that a "patent may not be obtained. . .if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

The Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459 (1966) partially defines the basic factual inquiries relating to section 103 in the following way: "The scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill

in the pertinent resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined." (383 U.S. at 17.)

The examiner bears the burden of factually supporting any *prima facie* conclusion of obviousness. *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). If an independent claim is non-obvious under section 103, then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ.2d 1596 (Fed. Cir. 1988). Some suggestion or motivation must be found in the reference cited of the desirability of doing what the inventors have done in the present application. *In re Vaech*, 947 F.2d 488 (Fed. Cir. 1991); section 2142 MPEP. The cited reference must also disclose each of the claim limitations. *Al-Site Corp. v. VSI Intern., Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999); *Application of Saether*, 492 F.2d 849, 852 (CCPA 1974); section 2143 MPEP. If even a single claim limitation is not taught or suggested by the prior art, then that claim cannot be obvious over the prior art. *Application of Glass*, 472 F.2d 1388, 1392 (CCPA 1973). To say that modifications of the cited reference would have been obvious to a person skilled in the art "is not sufficient to establish a *prima facie* case of obviousness." *Ex parte Levengood*, 18 USPQ.2d 1300 (Bd.Pat.App.& Inter.1993); section 2143.01 MPEP. Finally, all words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson, supra*;; section 2143.03 MPEP.

3. Appellant's Contentions - None of the Independent Claims
Are Obvious and Norman Does Not Teach
Or Suggest The Claimed Invention

None of the independent claims 1 and 19 have been rejected under section 103. Because of this fact, dependent claims 10, 13, 18 and 26 (dependent from independent claims 1 and 19) are non-obvious. See *In re Fine, Supra*.

Second, as explained above, there is no suggestion or motivation in Norman of doing what the inventors' have done in the present application. As to the additional limitations of dependent claims 10, 13, 18 and 26, the examiner is obligated to cite proper prior art. A rejection cannot be based solely on the speculation as to what would or would not have been obvious to a person skilled in the art. Third, even if the examiner had cited proper prior art, the section 103 rejection would be improper because Norman does not disclose the limitation of the claimed invention as alleged by the examiner.

Claims 10, 13, 18 and 26 - Contentions

Because none of the independent claims 1 and 19 from which claims 10, 13, 18 and 26 depend were rejected as being obvious, none of the dependent claims are obvious.

The examiner's statements that claim limitations to flexible plastic, a check valve including a duckbill portion and an umbrella portion, and a hose coupler with an anti-siphon unit, would be obvious to a person skilled in the art does not meet the requirement of establishing a *prima facie* case of obviousness. The Board's decision in *Ex parte Levengood, supra.*, and section 2143.01 MPEP state that merely saying that modification of a reference would have been obvious is not sufficient to establish a *prima facie* case of obviousness.

Appellants further submit that the examiner has not shown any suggestion or motivation in Norman for doing what the inventors have done. *In re Vaeck, supra.*, and section 2142 MPEP require the examiner to support a section 103 rejection with some suggestion or motivation in the cited art (Norman) of the desirability of doing what the inventors here have done.

The examiner has not provided a reference or references which disclose all of the claim limitations. As noted above in Section A-3, independent claims 1 and 19 on which the rejected

claims depend contain limitations not disclosed in Norman as required by case and regulatory authority.

4. Conclusions

The examiner has not met his burden of presenting a *prima facie* case of obviousness. If the independent claims are non-obvious, then the dependent claims are non-obvious. The examiner has not presented an analysis showing at least a suggestion in Norman of doing what the inventors have done nor does he show that Norman teaches or suggests all of the limitations in each of the rejected claims. Furthermore, the examiner has substituted his own speculation as to what one skilled in the art would find obvious in place of pertinent prior art references. Therefore, the examiner has failed to meet a number of regulatory and statutory requirements.

C. Contentions Relative to Another Set of Rejections of Each Claim Listed Below Under 35 U.S.C. §103

1. Examiner's Statement of Rejection

Dependent claims 6, 22 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norman, in view of Packard, U.S. Patent 2,991,939 ("Packard"), a copy of which is attached in section IX, Evidence Appendix. The examiner states that "Norman discloses the limitations of the claimed invention with the exception of the metering disk. Packard discloses a metering disk 55. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the metering disk of Packard to the device of Norman to regulate the flow." See Final Office Action mailed March 2, 2005, page 4, paragraph 8.

2. Relevant Authority

If an independent claim is non-obvious under section 103, then any claim depending therefrom is non-obvious. *In re Fine, supra*. To be a proper rejection under section 103, the combined prior art references must teach or suggest all of the limitations found in the claims. *In*

re Vaeck, 947 F.2d 488, 20 USPQ.2d, 1438 (Fed. Cir. 1991); *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *Application of Saether, supra.*; *Application of Glass, supra.*; section 2142 MPEP.

3. Appellant's Contentions - None of the Independent Claims
Are Obvious and Norman and Packard Do Not Teach
Or Suggest All Of The Claim Limitations

The examiner has not rejected any of the independent claims in the present application as being obvious. Therefore, none of the dependent claims can be obvious under the holding of *In re Fine, supra.*

As explained above, each independent claim 1, 19 and 27 includes limitations not found in Norman. Packard is cited only as teaching a metering disc. Appellants submit that even if a metering disc was to be included in the Norman invention, the resulting product still would not possess all of the claimed limitations set forth herein.

Accordingly, even if the cited references were to be combined as suggested by the examiner, they do not teach or suggest all of the limitations in the present independent claims.

Claims 6, 22 and 30 - Contentions

Claim 6 is dependent from claim 1, claim 22 is dependent from claim 19 and claim 30 is dependent from claim 27. Because none of the independent claims were found to be obvious, none of the dependent claims are obvious.

Contrary to the examiner's statement that Norman discloses the limitations of the claimed invention, it has been noted in section A-3 of this Brief that claim 1 includes limitations directed to the orientation of the cartridge and to the three position valve structure; that claim 19 includes the limitations concerning the absence of a dip tube and the presence of a three position valve; and that claim 27 includes limitations directed to orientation of the cartridge as well as the absence of a dip tube. Norman lacks all of these limitations. Packard adds nothing more than

disclosure of a rotatable disk with a series of holes in conjunction with a spraying device consisting of a spray gun and a container. Therefore, a combination of Norman and Packard does not disclose, teach or suggest the limitations found in claims 6, 22 and 30.

4. Conclusion

The examiner has not met his burden of factually presenting a *prima facie* case of obviousness because the independent claims are non-obvious and because the cited references do not disclose, teach or suggest all of the limitations in each of the rejected claims.

D. Appellant's Request

In view of the foregoing, it is respectfully submitted that the examiner's rejections of claims 1-6 and 8-33 are not well taken and the Board is respectfully requested to reverse these rejections to allow the application to pass to issue.

VIII. CLAIMS APPENDIX

Claim 1. A spraying device comprising:

a cartridge containing a first liquid, the cartridge being removably connected to a sprayer body, the cartridge being oriented such that gravity exerts a downward force on the first liquid;

the sprayer body comprising:

a conduit for receiving a second liquid;

a movable valve structure having first and second liquid passageways, the first passageway communicating with the first liquid from the cartridge and the second passageway communicating with the second liquid flowing from the conduit;

a manual actuator positioned in operative relationship with the movable valve structure enabling movement of the valve structure between at least three discrete positions including:

a) a first position enabling the second liquid to flow through the valve structure to create a reduced pressure in the valve structure which draws the first liquid out of the cartridge and into the valve structure whereby the first and the second liquids mix to form an outlet stream which flows through the valve structure;

b) a second position enabling the second liquid only to flow through the valve structure and blocking the flow of the first liquid through the valve structure, and

c) a third position blocking the first and the second liquids from flowing through the valve structure; and

an orifice disposed in the spraying device for metering a predetermined amount of the first liquid from the cartridge into the valve structure when the valve structure is in the first

position to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream.

- Claim 2. The spraying device of claim 1, wherein the first liquid is a chemical.
- Claim 3. The spraying device of claim 1, wherein the second liquid is water.
- Claim 4. The spraying device of claim 1, wherein the metering orifice is disposed in the sprayer body.
- Claim 5. The spraying device of claim 1, wherein the metering orifice is disposed in the cartridge.
- Claim 6. The spraying device of claim 1, wherein the metering orifice is on a metering disc that is adjustable to select one of several orifice sizes.
- Claim 7. (Canceled)
- Claim 8. The spraying device of claim 1, wherein the valve structure is coupled to a spray nozzle.
- Claim 9. The spraying device of claim 8, wherein the spray nozzle is rotatably adjustable to provide different spray patterns.
- Claim 10. The spraying device of claim 1, wherein the cartridge is made of flexible plastic.
- Claim 11. The spraying device of claim 1, wherein the cartridge is capable of being disconnected from the sprayer body to enable the first liquid to be dispensed from the cartridge by squeezing the cartridge in an inverted position.

Claim 12. The spraying device of claim 1, wherein the cartridge includes a check valve for keeping the cartridge sealed until the first liquid is drawn out of the cartridge.

Claim 13. The spraying device of claim 12, wherein the check valve includes a duckbill portion and an umbrella portion.

Claim 14. The spraying device of claim 1, wherein the cartridge is not refillable.

Claim 15. The spraying device of claim 1, wherein the cartridge is refillable.

Claim 16. The spraying device of claim 1, wherein the cartridge includes a secondary threaded closure.

Claim 17. The spraying device of claim 1, wherein the conduit is coupled to a hose coupler.

Claim 18. The spraying device of claim 17, wherein the hose coupler includes an anti-siphon unit.

Claim 19. A spraying device comprising:

- a sprayer body coupled to a cartridge containing a first liquid;
- the sprayer body comprising:
- a conduit for receiving a second liquid;
- a valve structure coupled to the conduit, the valve structure allowing passage of the second liquid through the valve structure to create a reduced pressure that draws the first liquid out of the cartridge and into the valve structure without the need for a dip tube, the valve structure enabling the first and the second liquids to mix and form an outlet stream,
- the valve structure being movable between at least three positions including a first position for allowing the first and the second liquids to flow, a second position for allowing the

second liquid to flow and for blocking the first liquid, and a third position for blocking flow of the first and the second liquids; and

an orifice disposed in the spraying device for metering a predetermined amount of the first liquid into the valve structure to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream.

Claim 20. The spraying device of claim 19, wherein the metering orifice is disposed in the sprayer body.

Claim 21. The spraying device of claim 19, wherein the metering orifice is disposed in the cartridge.

Claim 22. The spraying device of claim 19, wherein the metering orifice is on a metering disc that is adjustable to select one of several orifice sizes.

Claim 23. The spraying device of claim 19, further including a spray nozzle coupled to the valve structure and being rotatably adjustable to provide different spray patterns.

Claim 24. The spraying device of claim 19, wherein the cartridge is capable of being disconnected from the sprayer body to enable the first liquid to be dispensed from the cartridge by squeezing the cartridge in an inverted position.

Claim 25. The spraying device of claim 19, wherein the cartridge includes a check valve.

Claim 26. The spraying device of claim 19, further including a hose coupler that is connected to the conduit and includes an anti-siphon unit.

Claim 27. A spraying device comprising:

a sprayer body for removable connection with a cartridge containing a first liquid, the cartridge being oriented such that gravity exerts a downward force on the first fluid;

the sprayer body comprising:

a conduit for receiving a second liquid;

a rotatable valve structure coupled to an actuator and the conduit,

the rotatable valve structure allowing the second liquid to flow through the valve structure to create a low pressure that draws the first liquid out of the cartridge and into the valve structure without the need for a dip tube, the rotatable valve structure enabling the first and the second liquids to mix and form an outlet stream,

the actuator and the rotatable valve structure being movable between at least two positions including a first position for allowing the first and the second liquids to flow and a second position for allowing the second liquid to flow and for blocking the first liquid from flowing; and

an orifice disposed in the spraying device for metering a predetermined amount of the first liquid into the valve structure to achieve a predetermined ratio of the first liquid to the second liquid in the outlet stream.

Claim 28. The spraying device of claim 27, wherein the metering orifice is disposed in the sprayer body.

Claim 29. The spraying device of claim 27, wherein the metering orifice is disposed in the cartridge.

Claim 30. The spraying device of claim 27, wherein the metering orifice is on a metering disc that is adjustable to select one of several orifice sizes.

Claim 31. The spraying device of claim 27, wherein the cartridge is capable of being disconnected from the sprayer body to enable the first liquid to be dispensed from the cartridge by squeezing the cartridge in an inverted position.

Claim 32. The spraying device of claim 27, wherein the cartridge includes a check valve.

Claim 33. The spraying device of claim 27, wherein the actuator and the rotatable valve structure are movable into at least a third position wherein the flow of the first and the second liquids are blocked.

IX. EVIDENCE APPENDIX

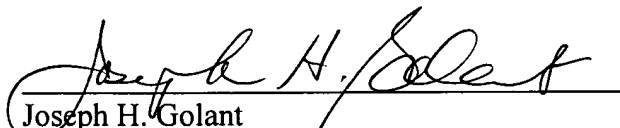
The evidence appendix includes the following items cited by the examiner: U.S. Patent 4,878,619 to Norman, and U.S. Patent 2,991,939 to Packard, both cited for the first time in the final office action mailed March 2, 2005.

X. RELATED PROCEEDINGS APPENDIX

Not applicable.

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Respectfully submitted,



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